

The Groundplane

SBARA—The South Bay Amateur Radio Association
KU6S Newsletter

April, 2012
Volume 12, Issue 4



Presidents Message

I had a very busy work schedule towards the end of the quarter, but finally there's now some spare time again for ham radio related things. I'm slowly collecting all the material I need for a solid state linear I'm planning to build. It's quite a project, and I'm still pondering what bells and whistles I want to put into it. How about you? Tell us what you're working on during the next meeting!

Let me tell you about the most recent SBARA board meeting. A number of items are interesting for you.

- SBARA has ordered a new banner. The old one we had is in very bad shape. We could find a source which does it for a very reasonable price, and an artist who did the final work. We will soon be able to show it off at the club meeting – it will be used at the Maker Faire and during Field day, of course.
- We could confirm our speaker for this month. Jason Anderson will show off his remote controlled quad copter equipped with video. Very impressive setup!
- The tape measure antenna workshop project is complete: we will have the workshop on June 2nd. As a nice bonus for attending the workshop, you could use your brand new antenna during the June Fremont fox hunt, same day 5 pm. Maybe you'll win? - You can register now on www.sbara.org.
- Given we receive green light from the 147.015 repeater owners, we will start our new SBARA net on Monday April 16th (that's the Monday after the regular membership meeting). It will be started at 7:30 pm.
- We had a good kickoff discussion for Field day. Al WT6K will elaborate our plans in this issue in a separate article.
- Related to the Field day discussion we decided to seriously look into the purchase of a solid state linear. It will enable us to run all stations on high power.

I received a message from NARCC. They contacted every club in Northern California – it appears they are working out new spectrum usage. I didn't have a chance to review things, but please go and have a look yourselves in their Yahoo group <http://groups.yahoo.com/group/narcc-spectrum/>. Maybe we can discuss further during the meeting.
(cont'd. on Page 2).



Old Betsy Spark Gap
Transmitter

Inside this issue

President's Message	1
Radio Act of 1912	2
SBARA Board Meeting Minutes ..	4
Ham Radio Deluxe	4
Meeting Location.....	5
CW Net and Repeater Info	8
Upcoming Events.....	6

Special points of interest

New SBARA Banner
Primavera
Ham radio Deluxe Forum
SBARA Field Day Information You can Use
EMMCOMM West 10 Year Event



We need you input for the next Groundplane!!

- Operating stories
- Station construction
- Operating accessories
- Product reviews
- Interesting contacts

Please consider putting an article together today for the Groundplane!!

SBARA to Support 2012 Primavera Bicycle Event

SBARA has been asked to provide radio support for the Primavera bicycle Ride on Sunday April 22, 2012. The bike ride starts and ends at Logan High School in Union City, travels south to Ed Levin Park, East/North up Calaveras Rd to Sunol, East through southern Pleasanton and Livermore to the top of the Altamont Pass then west back through central Livermore and Pleasanton, over the Dublin grade next to 580, south down Palomares Rd. to Niles Canyon and back to Logan High School.

There are options for rides of 25,40,60 and 100 miles. We need to cover 5 aid stations, plus net control and as many SAG vehicles as possible, up to 17. The most important SAG areas to cover with Ham Radio are Calaveras Rd and Palomares Canyon as cell phones do not work there. An HT with any outside the car antenna will work for SAG. An HT with a rubber ducky and 11 hours of battery will suffice at all the aid stations. We will be using the 147.045+ repeater on Sunol ridge. Except in the area of Ed Levin where we will use W6MLP 145.43.

Morning only or afternoon only shifts are available. Contact Tony Flusche at: ab6br@arrl.net or you may call him at: 510-247-3220.

New SBARA Banner

SBARA will soon have a new 8' x 2' banner available. We will have good use for it!



www.sbara.org

Presidents Message (cont'd. from Page 1)

I also received a message from the Baker to Vegas team. They are looking for ham radio support. Unfortunately the event conflicts this year with the Primavera Bike Ride. Let me know in case you decide to go on the Baker to Vegas tour, then I can connect you with the right people.

See you at the membership meeting!
Bernhard AE6YN

Radio Act of 1912 Summation

Part of the impetus for the act's passage was the sinking of the [RMS Titanic](#). The *Titanic* had sent out a distress call over its wireless telegraph, which was received by a ship in the area. However, it was later learned that another ship was *closer* to the *Titanic* than the rescuing ship, but it did not receive the distress call because its sole wireless operator was not on duty. Thus, one aspect of the Act was to mandate that vessels had the continuing capability to receive messages on two wavelengths: 300 meters and 600 meters ([500 kHz](#)).^[1] This meant that vessels would need to have an operator on duty at all times.

Another factor was an ongoing conflict between [amateur radio](#) operators and the U.S. Navy and private corporations, that included amateurs forging naval messages and issuing fake distress calls. The [Wireless Ship Act of 1910](#) was seen as too weak to address the problems. The [United States Congress](#) considered six different proposals for replacing it in the period between 1910 and 1912, eventually enacting the 1912 Act.^[2]

To combat the issue with amateur radio operators, the Act provided for a system of [licensing](#) all radio stations in the US, including amateur radio operators. Further, it prohibited those amateurs from transmitting over the main commercial and military wavelengths. Amateurs were limited to transmitting signals that were below a wavelength of 200 meters (1.5 MHz). Besides being limited by wavelength, amateurs were also limited to location and operating hours.

Reprinted from the Radio Act of 1912.

Additional information on the Titanic's Radio Equipment is detailed at — <http://www.hf.ro/> Quite Interesting to see the Marconi Installation.

Ham Radio Deluxe

[Ham Radio Deluxe](#) (HRD) Version 5.0 is a suite of free Windows programs providing computer control for commonly used transceivers and receivers. HRD also includes mapping, satellite tracking and the digital mode program Digital Master 780 (DM780).

HRD is designed for Windows XP, Vista and Windows 7), also Internet Explorer 6.0 (or higher) is required. It may work with Windows 98 but this is not supported. The policy is to support Windows versions which are supported by Microsoft.

Other operating systems are not supported at this time although there is discussion on the forums. HRD runs well under Virtual Machines of which there are at least two available freely.



Do1Thing

SBARA has joined the ranks of Media. Be sure to check us out on Facebook. SBARAs address is:

www.facebook.com/groundplane

Come on up and check us out and help keep the site going strong!



Support SBAR's Monthly Raffle!!



SBARA
March Board of Directors
Meeting Highlights



Meeting Highlights and Goals

- Field Day Planning
- Volunteers Needed for Events
- Proposed Station Configurations

March SBARA Board of Directors Meeting Minutes

APRIL 2, 2012 MISSION COFFEE

IN ATTENDANCE: Bernhard Hailer AE6YN, Albert Wu KJ6CHW, Al Rendon WT6K, Umesh Ghodke K6VUG, Greg Miller WY6P, Jim Ritari K6RIT.

MEETING OPENED BY PRESIDENT BERNHARD HAILER AT 1903 PDT.

OLD BUSINESS:

1. Bernhard reported that the New Club Banner has been ordered and will be ready for the Maker Faire.
 2. Al informed the board that the Life Membership Plaques would be ready in a week. He has arranged a 'will call' pickup to save the shipping cost. Also, he proposed to the board that the presentation to Wayne Springsteen WU6A and Judy and Paul Lewis WD6ATI take place at the Field Day Potluck. The board members present agreed. Al will call Wayne and Judy to let them know.
 3. Bernhard announced that the speaker for this month's presentation is confirmed.
 4. SBARA board interns were discussed. No new interns have been invited to join the board. Each board member needs to think about who would make a good intern and make recommendation to the board. The concept needs to be expanded to have a pool of members that understand how the club operates and how to keep it going in the future.
 5. The subject of having the Tape YAGI Workshop on May 2nd, whether all the team was available to attend was considered. The consensus was that it will go on as now scheduled. Bernhard will include the workshop in his 'President's Letter' for the April GroundPlane and also make the announcement at the April 13th membership meeting. ON-LINE SIGNUP NEEDS TO BE EMPHASISED. www.sbara.org >Workshops>Click Here for details & sign-up
 6. It was decided that the new club net would start on Monday April 16th. Bernhard, Umesh and Greg will alternate as net control. Jim Ritari will see if he can hit the repeater from his QTH as a fourth net control operator. Bernhard will check with Bill and Tammy for permission to use the repeater on Monday evenings at 7PM.
 7. The location for the BOD appreciation dinner was discussed and the recommendation to have it at the Market Boiler on Auto Mall Pkwy was proposed. The members all agreed that that was a good restaurant to have the dinner. Al will follow up with reservations for July or early August.
5. The 15M station: operate as a GOTA or just another KU6S station we also use for the same purpose? If we do the latter, we can run an Amp to make it more fun.

NEW BUSINESS:

Bernhard opened the topic of SBARA Field Day. Al presented the following status on Field Day June 22, 23 and 24th:

Field Day Planning – CURRENT STATUS:

1. Food Committee.

- Need to find someone to head the main course food orders and pickup.
- Sidney Parker KA6YBK – Shopping sub committee (COSTCO)
- Ken Lippman KI6RJL – Shopping sub-committee (Smart & Final)
- Ken Parker KJ6ANR – Head Table/Chairs rental sub-committee
- Steve Wilson KA6S – Provide Truck for Table/Chairs sub-committee
- Lloyd Hartshorn N6DOK – Drive truck for the Table/Chairs sub-comm.

2. Station Captains:

- 80 – 20 Meters – Bernhard Hailer AE6YN
- 40 Meters – Steve Wilson KA6S
- 15 Meters – Greg Miller (Hardware) & Deborah Patten AG6HJ GOTA Captain
- 10 Meter – Don Amyx N6DA
- Satellite – Umesh Ghodke K6VUG
- Newark ARES will again operate the VHF and UHF bands.

3. Amplifiers – recommend club buy another since we now seem to enjoy the 'fun' of running QRO at Field Day.

4. How do we minimize the 'stuff' we need to bring?

6. No signup for the Friday work crew or the Sunday takedown crew.

Discussion:

1. Al agreed to ask Noreen Wilson to head the main course food orders and pickup.
2. Greg offered to help with the setup and operation of the 15 Meter Station with Deborah. He also said Mike Berke would have the UHF and VHF stations as last year. It was proposed to operate the 15 meter station QRO under the KU6S call sign so ops would have more fun.
3. It was tentitively agreed to buy two amplifiers for this year's Field Day. Bernhard brought up the Elecraft KPA 500 as a reliable choice. Umesh also has a Tokyo Power 400 watt amp for sale that would be good for 10 Meters. He will let Al know what he wants for the amp.
4. The subject of Friday the 22nd , setup day came up. Al was asked by Jim to once again run the series of e-mails reminding everyone of the work day and that help is needed. Also, the board decided to make lunch for the crew as we did last year. Tube steaks with the fixings, etc.
5. Last, the topic of generators was brought up. In general we need a separate QUIET generator for each station because of the amplifiers. Bernhard has a Honda 3Kw generator for the 20 Meter station, Al has a Honda 2Kw generator for the 40 Meter station. Steve Wilson KA6S may bring the 5Kw Boy Scout generator. In general, each station captain needs to work on getting their own generator. The meeting was closed by President Bernhard at 1954 PDST.
Respectfully Submitted: Al Rendon WT6K, 2012 recording Secretary

SBARA

2012 Field Day Location

Operating as KU6S

Multi—Op Installation



SBARA

2012 Field Day Potluck—World Famous Event All Members are Welcome to Bring their dish to Share. More details coming soon. Watch this Space!!



Maker Faire®

ARRL Field Day!

Field Day is June 23-24, 2012! Field Day is a contest, an emergency preparedness exercise, a public relations demonstration, a great event for clubs, or just a fun way to get on the air? Field Day is ALL these things! Hams set up away from commercial power and normal installations for 24 hours in June.



SBARA Field Day Information / Requirements Call for SBARA Member Volunteers

Field Day this year is June 22nd , 23rd & 24th. We start setup on Friday the 22nd so if available, please come to Central Park at 10AM. From the March Board of Director's meeting here is a summary of the current planning for Field Day 2012

CURRENT STATUS

Can you Volunteer/Take Charge of an Item?

1. Food Committee

- Need to find someone to head the main course food orders and pickup.
- Sidney Parker KA6YBK – Shopping sub committee (COSTCO)
- Ken Lippman KI6RJJ – Shopping sub-committee (Smart & Final)
- Ken Parker KJ6ANR – Head Table/Chairs rental sub-committee
- Steve Wilson KA6S – Provide Truck for Table/Chairs sub-committee
- Lloyd Hartshorn N6DOK – Drive truck for the Table/Chairs sub-comm.

2. Station Captains

- 80 – 20 Meters – Bernhard Hailer AE6YN
- 40 Meters – Steve Wilson KA6S
- 15 Meters – Greg Miller (Hardware) & Deborah Patten AG6HJ GOTA Captain
- 10 Meter – Don Amyx N6DA
- Satellite – Umesh Ghodke K6VUG
- Newark ARES will again operate the VHF and UHF bands.

3. Amplifiers

Recommend club buy another since we now seem to enjoy the 'fun' of running QRO at Field Day

4. 15M Station

Operate as a GOTA or just another KU6S station we also use for the same purpose? If we do the latter, we can run an Amp to make it more fun.

5. Lunch

For the Friday work crew.

Al is looking for a volunteer to arrange the order and pickup of the Main Course dishes at the potluck. Greg offered to help with the setup and operation of the 15 Meter Station with Deborah. He also said Mike Berke would have the UHF and VHF stations as last year. It was proposed to operate the 15 meter station QRO under the KU6S call sign so ops would have more fun. It was sensitively agreed to buy one or two amplifiers for this year's Field Day. Bernhard brought up the Elecraft KPA 500 as a reliable choice.

(cont'd on Page 5).

SBARA Field Day Information / Requirements Call for SBARA Volunteers (cont'd.)

(cont'd. from Page 4)

6. Additional Thoughts

The subject of Friday the 22nd, setup day came up. Al was asked by Jim to once again run the series of e-mails reminding everyone of the work day and that help is needed. Also, the board decided to make lunch for the crew as we did last year Tube steaks with the fixings, etc. Last, the topic of generators was brought up. In general we need a separate QUIET generator for each station because of the amplifiers. Bernhard has a Honda 3Kw generator for the 20 Meter station, Al has a Honda 2Kw generator for the 40 Meter station. Steve Wilson KA6S may bring the 5Kw Boy Scout generator. In general, each station captain needs to work on getting their own generator.

Mark your calendar and plan to once again join the SBARA Field Day fun.

73,

Al

wt6k

Tri-City VE Test Dates

Exams will be administered at Hurricane Electric, 48233 Warm Springs Blvd., Fremont.

Contact: Bernhard, ae6yn at arrl dot net for info. \$15 fee. Walk-ins allowed.

Tri-City VE Session Dates 2012

Saturday, May 12, 9:00 - 11:30 a.m.

Tuesday, Jun 14, 6:30 - 9:00 p.m.

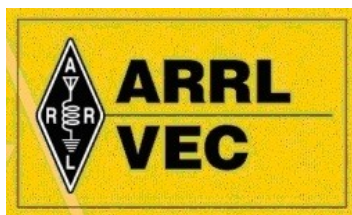
Saturday, Jul 14, 9:00 - 11:30 a.m.

Tuesday, Aug 14, 6:30 - 9:00 p.m.

Saturday, Sep 8, 9:00 - 11:30 a.m.

Tuesday, Oct 9, 6:30 - 9:00 p.m.

Saturday, Nov 10, 9:00 - 11:30 a.m.

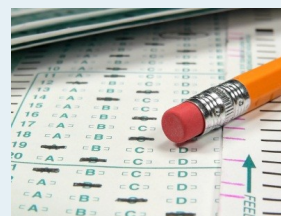


Power for Field Day
Gas to AC/DC



Have you thought about
upgrading yet?

SBARA has many VE Test Sessions
to get you that Upgrade!!





Mark your calendar...
May 4-6, 2012 at the
Grand Sierra



EMCOMM (Emergency Communications) has been a vital part of all the emergency and disaster operations since the invention of the radio. It plays a very important part in getting messages to the appropriate people and places when all other modes of communication have failed.

RESERVE YOUR ROOM
or RV SPACE

EMCOMMWest, 10 Year Anniversary

Reno, NV -- Registration is now in full swing for EMCOMMWEST 2012! This year marks the 10th Anniversary for the ARRL Specialty convention, and we trust it will be our biggest and best year ever! The convention will once again be held at the Grand Sierra Resort in Reno, May 4 - 6.

We are excited that this year our special guest speaker will be Chip Margelli, K7JA who is presently an executive with CQ Magazine, and has a resume like no other. Chip was one of the hams featured on the Jay Leno show, who beat the "texters" with Morse Code. He spent many years with Bob Heil of Heil sound, and is truly a ham radio legend.

Chip will be our Saturday night banquet speaker, and will also present a special forum during the day on Saturday May 5. Remember banquet seating is limited, and this one will sell out for sure, so make your reservation early!

Our Keynote speaker from the ARRL will be the League's COO, Harold Kramer, WJ1B who will bring us a wide range of discussion topics and information from a national level.

This year NARRI will enjoin with EMCOMMWEST bringing it's annual "VOIP CONFERENCE" to Reno for the first time, hosted by Kent Johnson, W7AOR. This topical conference will run all day on Friday May 4, and seating must be reserved in advance. For information on NARRI and it's programs, please check

www.narri.org

For registration and hotel room information, please go to www.emcommwest.org Check back often as we will be updating the site constantly with new information on speakers and forums and other great activities. We still have room for more vendors in our vendor hall, and you may register for space on the website. Of course we will have a couple of great door prizes, and some very nice radios as grand prizes again this year!

If you have a forum or topic YOU would like to present, please send an email to speakers@emcommwest.org.

For all other questions, and to volunteer as part of our team, please direct them to: info@emcommwest.org

We look forward to seeing you soon in Reno May 4 - 6 for the 10th Anniversary edition of EMCOMMWEST!!! 73!

SBARA Calendar Looking Forward

Tue Apr 10th, 6:30 – 9:00 pm Tri-City VE session, Hurricane Electric, 48233 Warm Springs Blvd

Fri Apr 13, 6 pm pre SBARA Meeting dinner at Zorbas, 46505 Mission Blvd.

Fri Apr 13, 6 pm SBARA membership meeting, Hurricane Electric, 760 Mission Ct

Sun Apr 15, 7:30 pm Slow CW net, 144.230 MHz

Mon Apr 16, 7:30 pm SBARA net, 147.015 MHz, positive offset, 103.5Hz sub tone

Tue Apr 17, 7:30 pm ARES net, 147.015 MHz, positive offset, 103.5Hz sub tone

Thu Apr 19, 7:30 pm Fremont ARES meeting, 3300 Capitol, Building A

Thu Apr 19 7:30 pm Slow CW net, 144.230 MHz

Sun Apr 22, 7:30 pm Slow CW net, 144.230 MHz

Mon Apr 23, 7:00 pm SBARA board meeting, Mission Coffee, 151 Washington Blvd

Mon Apr 23, 7:30 pm SBARA net, 147.015 MHz, positive offset, 103.5Hz sub tone

Tue Apr 24, 7:30 pm ARES net, 147.015 MHz, positive offset, 103.5Hz sub tone

Thu Apr 26, 7:30 pm Slow CW net, 144.230 MHz

Sun Apr 29, 7:30 pm Slow CW net, 144.230 MHz

Mon Apr 30, 7:30 pm SBARA net, 147.015 MHz, positive offset, 103.5Hz sub tone

Tue May 1, 7:30 pm ARES net, 147.015 MHz, positive offset, 103.5Hz sub tone

Thu May 3, 7:30 pm Slow CW net, 144.230 MHz

Sun May 6, 7:30 pm Slow CW net, 144.230 MHz

Mon May 7, 7:30 pm SBARA net, 147.015 MHz, positive offset, 103.5Hz sub tone

Tue May 8, 7:30 pm ARES net, 147.015 MHz, positive offset, 103.5Hz sub tone

Thu May 10, 7:30 pm Slow CW net, 144.230 MHz

Fri May 11, 6 pm pre SBARA Meeting dinner at Zorbas, 46505 Mission Blvd.

Fri May 11, 6 pm SBARA membership meeting, Hurricane Electric, 760 Mission Ct

DX Code of Conduct

Special Thanks to Jack Ekstrom K9JE for providing the following:

- ☐ I will listen, and listen, and then listen some more
- ☐ I will only call if I can copy the DX station properly
- ☐ I will not trust the cluster and will be sure of the DX station's call-sign before calling
- ☐ I will not interfere with the DX station nor anyone calling him and will never tune up on the DX frequency or in the QSO slot
- ☐ I will wait for the DX station to end a contact before I call him
- ☐ I will always send my full call-sign
- ☐ I will call and then listen for a reasonable interval; I will not call continuously
- ☐ I will not transmit when the DX Operator calls another call-sign, not mine
- ☐ I will not transmit when the DX Operator queries a call-sign not like mine
- ☐ I will not transmit when the DX station calls other geographic areas than mine
- ☐ When the DX Operator calls me, I will not repeat my call-sign unless I think he has copied it incorrectly
- ☐ I will be thankful if and when I do make a contact
- ☐ I will respect my fellow hams and conduct myself so as to earn their respect

Get Involved with SBARA

...come to a monthly meeting.

Our regular meetings take place the second Friday of the month at Hurricane Electric. Pre-Meeting social dinner begins at 6pm. Then at 7pm our meeting social begins with the monthly meeting starting at 7:30pm. Everyone is welcome to attend, regardless of whether you are a member. Bring a friend! Or if you're thinking about becoming a ham, come and learn about the hobby!

...become a member.

Membership is open to all licensed radio amateurs. The annual membership fee of \$35 help support the upkeep of our repeater, as well as participate in the Annual Field Day, plus other communication events. You can become a

...join a fox hunt.

On the Saturday of the month (around 7pm) organizes a good old fashioned fox hunt. The starting point is in Fremont, Ca. For more information, please contact Don at

...take a VE test.

VE testing is scheduled throughout the year on the second Saturday of the month on even months and on the second Tuesday of the month. Details are in this issue of the Groundplane.

Fremont Repeaters & Net Information

WA6PWW— 147.015 + 600Khz, PL 103.5	123.0
WA6PWW—223.900— 500Khz, PL 107.2	K6AIR—441.525 +5Mhz, PL 123.0
WA6PWW—442.600 +5Mhz, PL107.2	ARES Net Meeting—Tuesday Evenings @ 7:30pm on 147.015+600Khz, PL 103.5
K6AIR—146.940—600Khz, PL	

Are you looking for your favorite Repeater? Here is information you can use!

Time to dust off those Keys....

The Slow CW net is taking place
Every Thursday and Sunday night at 7:30 pm on 144.230MHz.

The net has now its own e-mail address. Please contact us here:
"SF Bay CW Enthusiasts" <sf-bay-cw-enthusiasts at googlegroups.com>

—... ..—

Bernhard AE6YN

SBARA Meeting Location Second Friday of the Month

Our meeting location is at:
Hurricane Electric.
The address in Fremont is:
760 Mission Court — Come to the meeting.
Bring your HF transceiver, antenna or HT !
Talk-In 147.015Mhz. +600

The South Bay Amateur Radio Association., is a general interest amateur radio club serving the Fremont Tri-City area. Records indicate the club has been in existence since at least 1974, and has functioned continuously ever since. We are an ARRL Special Service Club, an California not-for-profit corporation, and a 501(c)(3) tax exempt organization as specified in IRS Statutes. We sponsor training classes for new hams, license examination sessions, and participate in various public service events. If you have a specialized amateur radio interest, chances are you can share it with one or more of our club members.

The South Bay Amateur Radio Association meets on the 2nd Friday of every month at Hurricane Electric in Fremont. The meeting begins at 7:30 PM and includes social time, a business portion and a program of interest.

All persons interested in amateur radio are invited to attend. Families are welcome.

We hope to see you there!



**South Bay Amateur Radio
Association - SBARA**
Founded 1974
Mailing Address
Box 8401
Fremont, Ca. 94537-8401

Web Site — www.sbara.org
Facebook—[www.facebook.com/
groundplane](http://www.facebook.com/groundplane)

President
Bernhard Hailer, AE6YN
Vice President
Albert Wiu, KJ6CHW
Treasurer
Don Amyx, N6DA
Secretary
Al Rendon, WT6K
Newsletter Editor
Bill Artelt, WB9YVM
Webmaster
Umesh Ghodke, K6VUG
Quartermaster
Greg Miller, W6YP
Program Facilitator
Open Position
Refreshments
Open Position

SBARA - Groundplane

The Groundplane is published monthly by the South Bay Amateur Radio Association. Articles and letters are always welcome. The normal deadline for material is the 20th day of each month for the next month's news-letter. Articles can be sent by email to hamradio at Comcast dot net or via U.S. Mail. Contact the Editor for details and submission guidelines.



Upcoming SBARA Events

April Action Packed Meeting

April 13th, 2012 at 7:30pm Hurricane Electric, Fremont

Amateur Exams

ARRL VEC– April 10th @ 6:30pm at Hurricane Electric – 48233 Warm Springs Blvd. Fremont. **Contact:** Bernhard, ae6yn at arrl dot net for info. \$15 fee.

***Additional information is described at Website,
www.sbara.org***

Select License Exams from the Navigation URL.

South Bay Amateur Radio Association — SBARA

The Ground Plane — KU6S

<http://www.sbara.org>

P.O. Box 8401

Fremont, Ca.

PLEASE
PLACE
STAMP
HERE